

### REMARKS

This response is being submitted prior to the 6-month date from which the Final Office Action was mailed.

Claims 1-3, 6-9, 14-17, 19, 24-28, 30-31, and 34-35 were pending. The Examiner rejected claims 26-28, 30-31, and 34, and objected to claims 1-3, 6-9, 14-17, 19, 24, 25, and 35.

Claims 30 and 31 are canceled herein without prejudice. Claims 1 and 27 are amended herein to replace the term "tags" with the term "tag," thus correcting a typographical error. Claim 27 further has been amended to replace the phrase "said second separation function" with the phrase "said second separation tag," which has antecedent basis earlier in the claim. Claim 26 has been amended to replace the phrase "lacking said non-cleaved separation tag" with the phrase "lacking said first separation tag and said second separation tag." Similarly, claim 34 has been amended to replace the phrase "cleaving the other separation tag" with the phrase "cleaving the non-cleaved said first separation tag or said second separation tag that was not cleaved in step (d)." Thus, no new matter has been added.

In light of these amendments and the following remarks, Applicant respectfully requests reconsideration and allowance of claims 1-3, 6-9, 14-17, 19, 24-28, and 34-35.

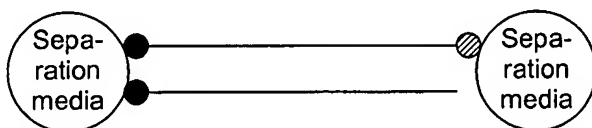
#### Claim objections

The Examiner objected to claims 1 and 27, stating that "said second separation tags" in line 6 of step (a) should read "said second separation tag." Claims 1 and 27 were amended according to the Examiner's suggestion in the Amendment and Reply filed April 15, 2005. However, the amendments were not entered in the Advisory Action, in which the Examiner stated that Applicant's "argument has been fully considered but it is not persuasive toward the withdrawal of the objection because Applicant's argument with respect to the objection is moot since Applicant has amended claims 1 and 27." Thus, Applicant is unsure whether the objection has been withdrawn. As such, claims 1 and 27 are again amended herein according to the Examiner's suggestion. In light of these amendments, Applicant respectfully requests withdrawal of the objection to claims 1 and 27.

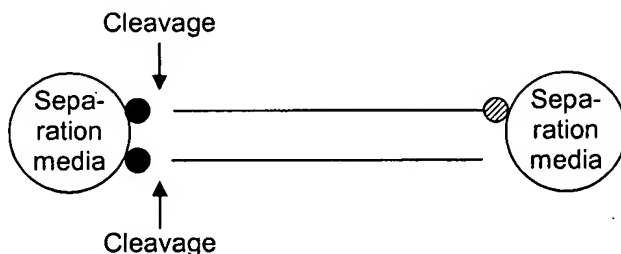
Rejections under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 26-28, 31, and 34 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner stated that there is insufficient basis for the phrase "said non-cleaved separation tag" in claim 26 or the phrase "said second separation function" in claim 27. The Examiner also stated that claim 31 is vague and indefinite because it is unclear how the separation medium recited in claim 30 can comprise a first separation medium and a second separation medium. Finally, the Examiner stated that there is insufficient antecedent basis for the phrase "other separation tag" in claim 34. These rejections were maintained in the Advisory Action.

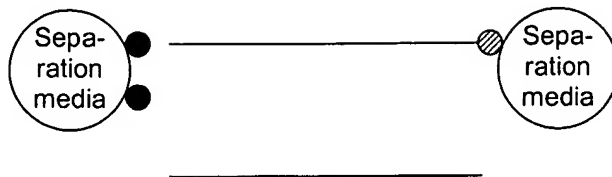
Applicant respectfully disagrees. To expedite prosecution, however, Applicant has amended claim 26 to recite that step (e) includes eluting an oligonucleotide lacking the first separation tag and the second separation tag. In addition, Applicant has amended claim 34 to recite that step (f) includes cleaving the non-cleaved first separation tag or second separation tag in step (d) of claim 26. The following diagrams are included for clarification. After step (c) of claim 1, both bifunctional and monofunctional oligonucleotides can be attached to the separation media.



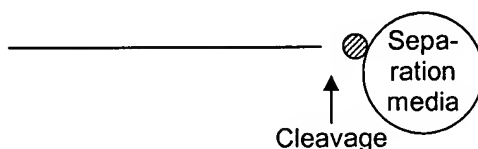
The first separation tag, or the second separation tag, can be cleaved as recited in step (d) of claim 26.



An oligonucleotide lacking the first and second separation tags then can be eluted as recited in step (e) of claim 26.



The other (non-cleaved) separation tag then can be cleaved as recited in step (f) of claim 34.



Finally, an oligonucleotide lacking the first and second separation tags can be eluted as recited in step (g) of claim 34.



In addition to the amendments to claims 26 and 32, Applicant has amended claim 27 to replace the phrase "said second separation function" with the phrase "said second separation tag." Further, Applicant has amended claim 31 to recite that the separation medium of claim 30 comprises two different types of separation media. Given these amendments, claims 26-28, 31, and 34 are definite.

In light of the above, Applicant respectfully requests withdrawal of the rejection of claims 26-28, 31, and 34 under 35 U.S.C. § 112, second paragraph.

#### Rejections under 35 U.S.C. § 102

The Examiner rejected claim 30 under 35 U.S.C. § 102(b) as being anticipated by the Kwiatkowski *et al.* reference (*Nucl. Acids Res.*24:4632-4638, 1996). The Examiner stated that the Kwiatkowski *et al.* reference teaches a plurality of oligonucleotides (*e.g.*, oligonucleotide 16

in Figure 1) that each have a first separation tag (*i.e.*, a CPG-based support) attached to a first end of the oligonucleotide and a second separation tag (*i.e.*, a disiloxyl group) attached to a second end of the oligonucleotide, wherein cleavage of the second separation tag yields an oligonucleotide having a 3' hydroxyl moiety as recited in step (a) of present claim 30. The Examiner further stated that the Kwiatkowski *et al.* reference teaches that since the oligonucleotide is bound to a reversed-phase Pep RPC column for purification, the reference discloses a separation medium to which the plurality of oligonucleotides are adhered as recited in step (b) of present claim 30. Thus, the Examiner concluded that the Kwiatkowski *et al.* reference teaches all of the limitations of claim 30.

The Examiner maintained this rejection in the Advisory Action. The Examiner stated that "since a CPG-based bead is a moiety bonded to the 5' end of compound 16 and can be used as a separation tag to be separated from other oligonucleotides that lack a CPG-based bead, the CPG-based bead on compound 16 is a separation tag." The Examiner also stated that "one of skill in the art can tell that cleavage of the disiloxyl linker from compound 16 will result in a 3' hydroxyl group at the 3' end of compound 16.

Applicant respectfully disagrees. The Kwiatkowski *et al.* reference does not anticipate claim 30. To further prosecution, however, claim 30 has been canceled herein without prejudice. Thus, the rejection of claim 30 under 35 U.S.C. § 102(b) is moot.

#### Allowable claims

The Examiner stated that claims 1-3, 6-9, 14-17, 19, 24-28, 34, and 35 appear to be allowable if the above objections and rejections under 35 U.S.C. § 112 are overcome. Applicant respectfully submits that the objections and rejections have been overcome, and requests allowance of the claims.

#### Request for rejoinder of withdrawn claims

In the Response to Restriction Requirement mailed August 6, 2004, Applicant made several species elections that resulted in claims being withdrawn. Given the apparent allowability of claims cited by the Examiner as being generic to the distinct species, Applicant now requests rejoinder of the withdrawn claims as follows.

First, the Examiner stated that claim 1 is generic to claims 3-6. Claims 4 and 5 were withdrawn. Since claims 4 and 5 depend directly or indirectly from claim 1, which Applicant submits is in condition for allowance, Applicant respectfully requests rejoinder of claims 4 and 5.

Second, the Examiner stated that claim 1 is generic to claims 8-13. Claims 10-13 were withdrawn. Since claims 10-13 depend indirectly from claim 1, which Applicant submits is in condition for allowance, Applicant respectfully requests rejoinder of claims 10-13.

Third, the Examiner stated that claim 1 is generic to claims 17-23. Claims 18 and 20-23 were withdrawn. Since claims 20-23 depend directly or indirectly from claim 1, which Applicant submits is in condition for allowance, Applicant respectfully requests rejoinder of claims 18 and 20-23.

Fourth, the Examiner stated that claim 27 is generic to claims 28-29. Claim 29 was withdrawn. Since claim 29 depends directly from claim 27, which Applicant submits is in condition for allowance, Applicant respectfully requests rejoinder of claim 29.

Finally, the Examiner stated that claim 1 is generic to claims 16, 32, and 33. Claims 32 and 33 were withdrawn. Since claims 32 and 33 depend directly from claim 1, which Applicant submits is in condition for allowance, Applicant respectfully requests rejoinder of claims 32 and 33.

Applicant : Marek Kwiatkowski  
Serial No. : 10/071,585  
Filed : February 8, 2002  
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### CONCLUSION

Applicant submits that claims 1-3, 6-9, 14-17, 19, 24-28, and 34-35 are in condition for allowance, which action is respectfully requested. Applicant also respectfully requests rejoinder of claims 4, 5, 10-13, 18, 20-23, 29, and 32-33. The Examiner is invited to telephone the undersigned agent if such would further prosecution.

Enclosed is a check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: June 13, 2005

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